

Applicant : Kai S. Lee  
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IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A counter-rotating twin shaft gardening/landscaping system, comprising:

a frame;

a first shaft mounted within the frame for rotation in a first direction;

a second shaft mounted within the frame for rotation in a second direction which is opposite to the first direction, the second shaft being mounted in a substantially parallel plane with the first shaft;

a driving shaft operatively connected to the first and second shafts for driving the first shaft in the first direction and the second shaft in the second direction;

a first ground manipulation device attached to the first shaft, the first ground manipulation device having a planar section extending substantially perpendicular to the first shaft and an outer engaging edge having a plurality of irregularities;

a second ground manipulation device attached to the second shaft, the second ground manipulation device having a planar section extending substantially perpendicular to the second shaft and an outer engaging edge having a plurality of irregularities; and

at least a select one of the first and second ground manipulation devices including a plurality of arms extending outwardly from the planar section, each arm having a first end and a second end being coupled to the planar section to form a closed loop with the planar section, wherein the planar sections of the first and second ground manipulation devices cooperate to penetrate a top surface of the ground, and wherein the arms engage the ground to deflect the soil away from the planar section of the select ground manipulation device.

2. (original) The gardening/landscaping system of claim 1, wherein the first ground manipulation device and the second ground manipulation device are in close proximity to one another.

3. (original) The gardening/landscaping system of claim 2, wherein the first ground manipulation device is distal in proximity to the frame than the second ground manipulation device, and wherein the arms are attached to the second ground manipulation device.

4. (currently amended) The gardening/landscaping system of claim 3, wherein the outer engaging outer surface edge of the first ground manipulation device includes a plurality of cutting teeth.

5. (currently amended) The gardening/landscaping system of claim 3, wherein the outer engaging surface edge of the second ground manipulation device includes a plurality of chipping teeth.

6. (currently amended) The gardening/landscaping system of claim 3, wherein the outer engaging surface edge of the first ground manipulation device includes a serrated portion.

7. (currently amended) The gardening/landscaping system of claim 3, wherein the outer engaging surface edge of at least one of the ground manipulation devices includes a smooth portion.

8. (currently amended) The gardening/landscaping system of claim 1, wherein the outer engaging outer surface edge of the first ground manipulation device includes a plurality of cutting teeth.

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9. (currently amended) The gardening/landscaping system of claim 1, wherein the outer engaging surface edge of the second ground manipulation device includes a plurality of chipping teeth.

10. (currently amended) The gardening/landscaping system of claim 1, wherein the outer engaging surface edge of the first ground manipulation device includes a serrated portion.

11. (original) The gardening/landscaping system of claim 1, wherein the gardening/landscaping system is a hand-held type system.

12. (original) The gardening/landscaping system of claim 1, wherein the gardening/landscaping system is a walk-behind type system.

13. (original) The gardening/landscaping device of claim 1, further including:

a third ground manipulation device attached to a select one of the first shaft and the second shaft, the third ground manipulation device including a planar section extending substantially perpendicular to the select shaft, and an outer engaging edge having a plurality of irregularities.

14. (original) The gardening/landscaping system of claim 13, wherein the third ground manipulation device includes a plurality of arms extending radially outward from the planar section thereof, and wherein the arms of the third ground manipulation device engage the ground to deflect the soil away from the planar section thereof.

15. (original) The gardening/landscaping system of claim 1, wherein the arms are connected via a bracket extending therebetween.

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16. (original) The gardening/landscaping system of claim 1, wherein the plurality of arms include at least two arms spaced equidistantly about the planar section of the select ground manipulation device.

17. (cancelled)

18. (currently amended) The gardening/landscaping system of claim 17, A counter-rotating twin shaft gardening/landscaping system, comprising:

a frame having a front and defining a forward direction of travel;

a first shaft mounted within the frame for rotation in a first direction and extending forwardly of the frame in a direction substantially parallel with the forward direction of travel;

a second shaft mounted within the frame for rotation in a second direction which is opposite from the first direction, the second shaft being substantially parallel to the first shaft;

a drive shaft operatively connected to the first and second shafts for driving the first shaft in the first direction and the second shaft in the second direction;

a first material working device attached to the first shaft and including a substantially planar section and a plurality of first material engaging arms extending outwardly from the planar section;

a second material working device attached to the second shaft and including a substantially planar section and a plurality of outwardly extending second material engaging arms extending outwardly from the planar section; and

wherein the material engaging arms extend about an outer periphery of the first and second material working devices, and wherein the material working devices cooperate to dislodge debris from in front of the frame as the system moves in the forward direction.

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19. (original) The gardening/landscaping system of claim 18, wherein the material engaging arms of the first and second material working devices include a plurality of saw teeth.

20. (original) The gardening/landscaping system of claim 19, wherein the saw teeth extend substantially perpendicular to the planar sections of the first and second material working devices.

21. (currently amended) The gardening/landscaping system of claim 20, further including:

a fixed engaging arm adapted to engage the debris and restrict the movement thereof as the debris is engaged by the material working devices.

22. (original) The gardening/landscaping system of claim 21, wherein the fixed engaging arm includes a plurality of forwardly extending projections.

23. (original) The gardening/landscaping system of claim 22, wherein the forwardly extending projections of the fixed engaging arm are triangularly shaped.

24. (cancelled)

25. (currently amended) The gardening/landscaping system of claim 24, A counter-rotating twin shaft gardening/landscaping system, comprising:

a frame having a front and defining a forward direction of travel;

a first shaft mounted within the frame for rotation in a first direction and extending forwardly of the frame in a direction substantially parallel with the forward direction of travel;

a second shaft mounted within the frame for rotation in a second direction which is opposite from the first direction, the second shaft being substantially parallel to the first shaft;

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a drive shaft operatively connected to the first and second shafts for driving the first shaft in the first direction and the second shaft in the second direction;

a first material working device attached to the first shaft and including a substantially planar section and a plurality of first material engaging arms extending outwardly from the planar section;

a second material working device attached to the second shaft and including a substantially planar section and a plurality of outwardly extending second material engaging arms extending outwardly from the planar section wherein the material working devices cooperate to dislodge debris from in front of the frame as the system moves in the forward direction; and

a fixed engaging arm adapted to engage the debris and restrict the movement thereof as the debris engaged by the material working devices wherein the fixed engaging arm includes a plurality of forwardly extending projections.

26. (original) The gardening/landscaping system of claim 25, wherein the forwardly extending projections of the fixed engaging arm are triangularly shaped.

27. (cancelled)

28. (cancelled)

29. (cancelled)

30. (cancelled)

31. (currently amended) The gardening/landscaping system of claim 30, further including: A counter-rotating twin shaft gardening/landscaping system, comprising:  
a frame having a front and defining a forward direction of travel;

a first shaft mounted within the frame for rotation in a first direction and extending forwardly of the frame in a direction substantially parallel with the forward direction of travel;

a second shaft mounted within the frame for rotation in a second direction which is opposite from the first direction, the second shaft being substantially parallel to the first shaft;

a drive shaft operatively connected to the first and second shafts for driving the first shaft in the first direction and the second shaft in the second direction;

a first material working device attached to the first shaft and including a substantially planar section and a plurality of first material engaging arms extending outwardly from the planar section;

a second material working device attached to the second shaft and including a substantially planar section and a plurality of outwardly extending second material engaging arms extending outwardly from the planar section wherein the material working devices cooperate to dislodge debris from in front of the frame as the system moves in the forward direction, the first and second material engaging arms extend substantially perpendicular to the planar sections of the material working devices, and wherein the material engaging arms extend across a substantial portion of the planar sections of the material working devices, and are adapted to dislodge snow from in front of the frame as the system moves in a forward direction; and

a housing having an exhaust aperture located therein, and wherein the arms of the material working devices cooperate to force the snow through the housing and through the exhaust aperture.

32. (original) The gardening/landscaping system of claim 31, wherein the housing further includes a direction chute that directs snow traveling through the exhaust aperture in a selected direction.

33. (currently amended) ~~The gardening/landscaping system of claim 30, further including:~~ A counter-rotating twin shaft gardening/landscaping system, comprising:

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a frame having a front and defining a forward direction of travel;

a first shaft mounted within the frame for rotation in a first direction and extending forwardly of the frame in a direction substantially parallel with the forward direction of travel;

a second shaft mounted within the frame for rotation in a second direction which is opposite from the first direction, the second shaft being substantially parallel to the first shaft;

a drive shaft operatively connected to the first and second shafts for driving the first shaft in the first direction and the second shaft in the second direction;

a first material working device attached to the first shaft and including a substantially planar section and a plurality of first material engaging arms extending outwardly from the planar section;

a second material working device attached to the second shaft and including a substantially planar section and a plurality of outwardly extending second material engaging arms extending outwardly from the planar section wherein the material working devices cooperate to dislodge debris from in front of the frame as the system moves in the forward direction, and wherein the material engaging arms extend across a substantial portion of the planar sections of the material working devices, and are adapted to dislodge snow from in front of the frame as the system moves in a forward direction; and

at least one snow auger blade device mechanically coupled to a drive shaft that drives the first shaft in a first direction and the second shaft in a second direction, and the snow auger blade device collects snow and channels the snow to the material working devices that propel the snow away from the system.

34. (original) The gardening/landscaping system of claim 33, wherein the material working device includes a generally planar section and at least one snow engaging arm extending outwardly from the planar section thereof.

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35. (original) The gardening/landscaping system of claim 34, wherein the snow engaging arm of the material working device extends substantially perpendicular from the planar section thereof.

36. (cancelled)

37. (original) The gardening/landscaping system of claim 31, wherein the housing further includes a direction chute that directs snow traveling through the exhaust aperture in a selected direction.

38. (currently amended) ~~The gardening/landscaping system of claim 17, further including:~~ A counter-rotating twin shaft gardening/landscaping system, comprising:

a frame having a front and defining a forward direction of travel;

a first shaft mounted within the frame for rotation in a first direction and extending forwardly of the frame in a direction substantially parallel with the forward direction of travel;

a second shaft mounted within the frame for rotation in a second direction which is opposite from the first direction, the second shaft being substantially parallel to the first shaft;

a drive shaft operatively connected to the first and second shafts for driving the first shaft in the first direction and the second shaft in the second direction;

a first material working device attached to the first shaft and including a substantially planar section and a plurality of first material engaging arms extending outwardly from the planar section;

a second material working device attached to the second shaft and including a substantially planar section and a plurality of outwardly extending second material engaging arms extending outwardly from the planar section, wherein the material working devices cooperate to dislodge debris from in front of the frame as the system moves in the forward direction; and

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at least one snow auger blade device mechanically coupled to a drive shaft that drives the first shaft in a first direction and the second shaft in a second direction, and the snow auger blade device collects snow and channels the snow to the material working devices that propel the snow away from the system.

39. (original) The gardening/landscaping system of claim 38, wherein the material working device includes a generally planar section and at least one snow engaging arm extending outwardly from the planar section thereof.

40. (original) The gardening/landscaping system of claim 39, wherein the snow engaging arm of the snow-blowing device extends substantially perpendicular from the planar section thereof.

41. (original) The gardening/landscaping system of claim 40, further including:

a housing having an exhaust aperture located therein, and wherein the arms of the material working devices cooperate to force snow through the housing and through the exhaust aperture.

42. (cancelled)

43. (cancelled)

44. (cancelled)

45. (cancelled)

46. (currently amended) The gardening/landscaping system of claim 45, A counter-rotating twin shaft gardening/landscaping system, comprising:

a frame having a front and defining a forward direction of travel;

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a first shaft mounted within the frame for rotation in a first direction and extending forwardly of the frame in a direction substantially parallel with the forward direction of travel;

a second shaft mounted within the frame for rotation in a second direction which is opposite from the first direction, the second shaft being substantially parallel to the first shaft;

a drive shaft operatively connected to the first and second shafts for driving the first shaft in the first direction and the second shaft in the second direction;

a first material working device attached to the first shaft and including a substantially planar section and a plurality of first material engaging arms extending outwardly from the planar section;

a second material working device attached to the second shaft and including a substantially planar section and a plurality of outwardly extending second material engaging arms extending outwardly from the planar section wherein the material working devices cooperate to dislodge debris from in front of the frame as the system moves in the forward direction; and

first cutting device includes at least one aperture extending through the planar section thereof and circumferentially about the first shaft; and

a tube extending about the first shaft and through the aperture extending through the planar section of the first ground manipulating device, wherein the tube is fixed with respect to the frame.

47. (currently amended) The gardening/landscaping system of claim 46, wherein the second material working device includes at least one sheering blade extending outwardly from the planar section of the first cutting material working device and longitudinally along the tube.

48. (cancelled)

49. (cancelled)

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50. (currently amended) The gardening/landscaping system of claim 46, wherein the first cutting material working device includes at least one sheering blade extending outwardly from the planar section of the first cutting material working device and longitudinally along the first shaft.

51. (cancelled)